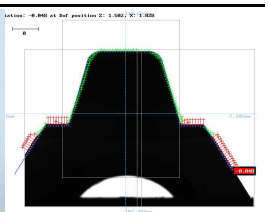
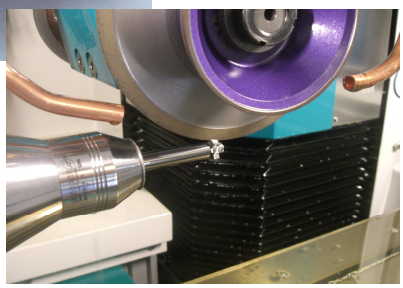
SCHNEEBERGER

Insert Z3, chipbreaker/OD

A08-250





A triangular insert with thread profile is ground in one setup: including OD reference sides and chipbreaker with 11 degree rakeangle. The Insert as seen can of course be produced efficiently and faster than the mentioned cycle time with SIR HPM. But in that case a NOR CFG is used to demonstrate its polyvalence.

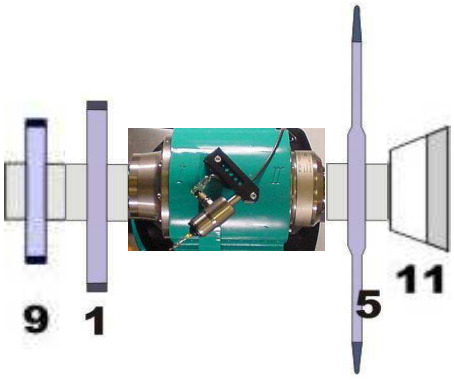
1. Cycletime for Production

Tool specifications Inner Circle 9.52, witdh 2.6 mm, r 0.5 mm Material CARBIDE							
Operations	Probe	Prf Rough	Chipbreaker	pregrinding	prefin.	fin.	ref.sides
Feed [mm/Min]	2000	30	200	40	40	50	400
Power [kW]		2	1	1	2	1	1
Cutting feed [m/s]		24	24	22	22	22	22
Used wheels		1	9	1	5	5	11
Grinding time [s]	16	51	128	80	80	73	78
Total cycle time	8 Min 25						

The mentioned cycle times are indicative. The material to be ground, different grinding wheels or other coolants can influence the cycle times considerably.

2. Used Grinding Wheels

1	1A1 Ø125 D64
9	1A1 Ø100 D16
5	14EE1 Ø150 D76 M
11	11V9 Ø100 D64



3. Machine and Software Requirements

Machines: 5 axes CNC grinders : NORMA CFG (SIRIUS HPM)
Control: Fanuc 160i
Coolant: Synthetic Oil, pressure 6 bar
Software: Quinto 4

responsible engineer: OP,27.3.09

TECHNOLOGY FOR TOOLING

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